

US EPA ARCHIVE DOCUMENT

CATALOG DOCUMENTATION
EMAP SURFACE WATERS PROGRAM LEVEL DATABASE
1991-1994 NORTHEAST LAKES DATA
LAKE FISH COUNT DATA

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1. DATA SET IDENTIFICATION

1.1 Title of Catalog Document
EMAP Surface Waters Lake Database
1991-1994 Northeast Lakes
Lake Fish Count Data Summarized by Lake

1.2 Authors of the Catalog Entry
U.S. EPA NHEERL Western Ecology Division
Corvallis, OR

1.3 Catalog Revision Date
November 1996

1.4 Data Set Name
FSHCNT

1.5 Task Group
Surface Waters

1.6 Data Set Identification Code
0107

1.7 Version
001

1.8 Requested Acknowledgment

These data were produced as part of the U.S. EPA's Environmental Monitoring and Assessment Program (EMAP). If you publish these data or use them for analyses in publications, EPA requires a standard statement for work it has supported:

"Although the data described in this article have been funded wholly or in part by the U.S. Environmental Protection Agency through its EMAP Surface Waters Program, it has not been subjected to Agency review, and therefore does not necessarily reflect the views of the Agency and no official endorsement of the conclusions should be inferred."

2. INVESTIGATOR INFORMATION

2.1 Principal Investigator

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2.2 Investigation Participant - Sample Collection

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Oregon State University
SUNY Syracuse College of Environmental Sciences and Forestry
Queens University
University of Maine
U.S. Fish and Wildlife Service
U.S. Environmental Protection Agency
Office of Research and Development
Regions 1 and 2

3. DATA SET ABSTRACT

3.1 Abstract of the Data Set

The primary function of the lake fish data are to provide a snapshot of the fish assemblage present in the lake at the time of sampling. The fish community represents an integral component of lake biological integrity and represents a snapshot of a publicly visible reflection of lake quality.

3.2 Keywords for the Data Set

Fish assemblage, fish community, fish species identification

4. OBJECTIVES AND INTRODUCTION

4.1 Program Objective

The Environmental Monitoring and Assessment Program (EMAP) was designed to periodically estimate the status and trends of the Nation's ecological resources on a regional basis. EMAP provides a strategy to identify and bound the extent, magnitude and location of environmental degradation and improvement on a regional scale based on a probability-based statistical survey design.

4.2 Data Set Objective

This data set is part of a demonstration project to evaluate approaches to monitoring lakes in EMAP. The data set contains the results of multi-habitat, multi-gear sample of the fish assemblage taken during midsummer.

4.3 Data Set Background Discussion

The fish community within a lake is an integral component of lake biological integrity and represents a publicly visible reflection of lake quality. This data set contains a list of species and counts of numbers of individuals of each species collected at each lake sampled.

4.4 Summary of Data Set Parameters

Fish Assemblage parameters include abbreviated genus/species code for the fish species collected, counts of adult, juvenile, and young-of-year for each species collected, number of fish collected with anomalies, and type of fishing gear used to collect samples. The full genus, species, and common name associated with each fish code can be found in the LAKE FISH NAMES dataset.

5. DATA ACQUISITION AND PROCESSING METHODS

5.1 Data Acquisition

5.1.1 Sampling Objective

To obtain a sample of the fish assemblage within a lake during a two month sampling window from July through mid-September.

5.1.2 Sample Collection Methods Summary

The assemblage was sampled using multiple gears distributed in multiple habitats throughout the lake. Habitats sampled were the shallow and deep pelagic zones and the riparian zone of the lake. Trap nets, minnow traps, gill nets and beach seines were the sampling gear used.

5.1.3 Sampling Start Date

July 1991

5.1.4 Sampling End Date

September 1994

5.1.5 Platform

Sampling was conducted from small boats.

5.1.6 Sampling Gear

Gill nets, traps nets, beach seines, minnow traps

5.1.7 Manufacturer of Instruments

NA

5.1.8 Key Variables

NA

5.1.9 Sampling Method Calibration

NA

5.1.10 Sample Collection Quality Control

See Baker et al. (1997).

5.1.11 Sample Collection Method Reference

Baker, J.R., G.D. Merritt, and D.W. Sutton (eds.). 1997. Environmental Monitoring and Assessment Program - Surface Waters: Field Operations Manual for Lakes.

Chaloud, D.J. and D.V. Peck. 1994. Environmental Monitoring and Assessment Program - Surface Waters: Integrated Quality Assurance Project Plan for the Surface Waters Resource Group.

5.1.12 Sample Collection Method Deviations

NA

5.2 Data Preparation and Sample Processing

5.2.1 Sample Processing Objective

See Baker et al. (1997) and Chaloud and Peck (1994).

5.2.2 Sample Processing Methods Summary

See Baker et al. (1997) and Chaloud and Peck (1994).

5.2.3 Sample Processing Method Calibration

See Baker et al. (1997) and Chaloud and Peck (1994).

5.2.4 Sample Processing Quality Control

See Baker et al. (1997) and Chaloud and Peck (1994).

5.2.5 Sample Processing Method Reference

See Baker et al. (1997) and Chaloud and Peck (1994).

6. DATA MANIPULATIONS

6.1 Name of New or Modified Values

None.

6.2 Data Manipulation Description

See Chaloud and Peck (1994).

7. DATA DESCRIPTION

7.1 Description of Parameters

Parameter Name	Data Type	Len	Format	Parameter Label
ADULT	Num	8		Number of adults collected
ANOMALY	Char	8		Anomaly Code
COM_FLD	Char	96		Data Entry Comments
COM_VAL	Char	55		Validation Comment

7.1 Description of Parameters, continued

DATE_COL	Num	8	MMDDYY	Start date of sample
FISHCODE	Char	6		Abbrev. Genus & Species
FLAG	Char	3		Flag for length measurements
FLAG2	Char	3		Flag for stocking or anomalies
GEAR	Char	2		Sampling gear
JUVENILE	Num	8		Number of juveniles collected
LAKENAME	Char	30		Lake Name
LAKE_ID	Char	6		Lake Identification Code
LAT_DD	Num	8		Lake Latitude (decimal degrees)
LON_DD	Num	8		Lake Longitude (-decimal degrees)
NAME_COM	Char	30		Fish common name
NUM_ANOM	Num	8		Number with Anomalies
SITE_ID	Char	4		Fish sampling station
TEAM_ID	Char	2		Sampling Crew Identifier
VAL_FLAG	Char	2		Validation Flag
VISIT_NO	Num	8		Visit number
YEAR	Num	8	YYYY	Sample Year
Y_O_Y	Num	8		Number of young_of_year collected

7.1.1 Precision to Which Values are Reported
Counts are reported as whole numbers.

7.1.2 Minimum Value in Data Set by Parameter

Name	Min
ADULT	0
JUVENILE	0
LAT_DD	39.2262
LON_DD	-78.8519
NUM_ANOM	1
VISIT_NO	1
YEAR	1991
Y_O_Y	0

7.1.3 Maximum Value in Data Set by Parameter

Name	Max
ADULT	1000
JUVENILE	800
LAT_DD	47.2125
LON_DD	-67.30111
NUM_ANOM	396
VISIT_NO	2
YEAR	1994
Y_O_Y	880

7.2 Data Record Example

7.2.1 Column Names for Example Records

ADULT,ANOMALY,COM_FLD,COM_VAL,DATE_COL,FISHCODE,FLAG,FLAG2,GEAR,JUVENILE,
LAKENAME,LAKE_ID,LAT_DD,LON_DD,NAME_COM,NUM_ANOM,SITE_ID,TEAM_ID,
VAL_FLAG,VISIT_NO,YEAR,Y_O_Y

7.2.2 Example Data Records

1," "," "," ",08/02/94,"OSMEMO"," "," "," ",0,"SHADOW LAKE","VT753L",
44.6687,-72.225,"RAINBOW SMELT",.,,"F8G","3"," ",1,1994,0

1,"S","ADIPOSE FIN CLIP 82G","DIDN'T FILL IN ANOMALY/STOCKING TABLE",
08/02/94,"SALVNA","F1"," "," ",0,"SHADOW LAKE","VT753L",44.6687,-72.225,
"LAKE TROUT",1,"F8G","3","M1",1,1994,0

7," "," "," ",08/02/94,"SALVFO"," "," "," ",0,"SHADOW LAKE","VT753L",
44.6687,-72.225,"BROOK TROUT",.,,"F9G","3"," ",1,1994,0

8. GEOGRAPHIC AND SPATIAL INFORMATION

8.1 Minimum Longitude

-78 Degrees 51 Minutes 6.84 Seconds West (-78.8519 Decimal Degrees)

8.2 Maximum Longitude

-67 Degrees 18 Minutes 4.00 Seconds West (-67.30111 Decimal Degrees)

8.3 Minimum Latitude

39 Degrees 13 Minutes 34.32 Seconds North (39.2262 Decimal Degrees)

8.4 Maximum Latitude

47 Degrees 12 Minutes 45.00 Seconds North (47.2125 Decimal Degrees)

8.5 Name of Area or Region

Northeast: EPA Regions I and II which includes Connecticut, Massachusetts,
Maine, New Hampshire, New Jersey, New York, Vermont, Rhode Island

9. QUALITY CONTROL / QUALITY ASSURANCE

9.1 Data Quality Objectives

See Chaloud and Peck (1994)

9.2 Quality Assurance Procedures

See Chaloud and Peck (1994)

9.3 Unassessed Errors

NA

10. DATA ACCESS

10.1 Data Access Procedures

10.2 Data Access Restrictions

10.3 Data Access Contact Persons

10.4 Data Set Format

10.5 Information Concerning Anonymous FTP

10.6 Information Concerning Gopher and WWW

10.7 EMAP CD-ROM Containing the Data

11. REFERENCES

Baker, J.R., G.D. Merritt, and D.W. Sutton (eds.). 1997. Environmental Monitoring and Assessment Program - Surface Waters: Field Operations Manual for Lakes. EPA/620/R-97/001. U.S. Environmental Protection Agency. Office of Research and Development. Washington, D.C.

Chaloud, D.J. and D.V. Peck. 1994. Environmental Monitoring and Assessment Program - Surface Waters: Integrated Quality Assurance Project Plan for the Surface Waters Resource Group. U.S. Environmental Protection Agency. Office of Research and Development.

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